

Section - 3

Q.2

Explain

1. The law of gearing! - Law of gearing State that the Common normal to the tooth profile at the point of contact should always pass through a fixed point called the pitch point in order to obtain a constant velocity ratio.

2. failure of gear tooth! -

1. There are two basic modes of gear tooth failure

(i) Breakage of tooth due to static and dynamic load.

(ii) Surface destruction

(a) Abrasive wear

b. Corrosive wear

(c) Pitting and

(d) ~~Scoring~~. Scoring

3. selection of gear material! - Factors on which selection



Selection of gear material depends on as follows.

1. Type of service
2. Degree of desired accuracy
3. Required dimension and weight of the drive
4. Peripheral speed
5. Method of manufacturing
6. Allowable stress
7. Wear resistance
8. Shock resistance